

IN THE CLAIMS:

Please amend claims 15 to 18, 23 to 26, 31 to 34, 39 to 42, and 47 to 55 as follows:

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15. (Amended) A method, including steps of:
receiving a set of network objects in response to a first request to a server [an information provider] from a client [an information requester]; and
maintaining said network objects in a cache memory in a network cache, said cache memory including mass storage;
wherein said step of maintaining [includes a step of] substantially minimizes [minimizing] a time required [measure of latency] for said network cache to retrieve a [displaying a logical group of] network object [objects] from said cache memory.

16. (Amended) A method as in claim 15, wherein said network objects include [step of maintaining includes a step of controlling a measure of latency for displaying] an HTML page to be retrieved from said cache memory and served to the client for display.

17. (Amended) A method as in claim 15, including a step of serving said network objects to said client [information requester] in place of said server [information provider].

18. (Amended) A method as in claim 17, wherein [including a step of serving] said network objects are served to said client [information requester] in place of said server [information provider] in response to a second request from said client [information requester].

23. (Amended) A method, including steps of:
receiving a set of network objects in response to a first request to a server [an information provider] from a client [an information requester]; and

maintaining said network objects in a cache memory in a network cache, said cache memory including mass storage;

wherein said step of maintaining includes steps of optimizing in said mass storage [a measure of] (a) spatial locality of storage of network objects within said mass storage, and (b) temporal locality of retrieval of said network objects from said mass storage.

24. (Amended) A method as in claim 23, wherein said network objects include [step of maintaining includes a step of controlling a measure of latency for displaying] an HTML page to be retrieved from said cache memory and served to the client for display.

25. (Amended) A method as in claim 23, including a step of serving said network objects to said client [information requester] in place of said server [information provider].

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26. (Amended) A method as in claim 25, wherein [including a step of serving] said network objects are served to said client [information requester] in place of said server [information provider] in response to a second request from said client [information requester].

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31. (Amended) A method, including steps of:
receiving a set of network objects in response to a first request to a server [an information provider] from a client [an information requester]; and
maintaining said network objects in a cache memory in a network cache, said cache memory including mass storage;
wherein said step of maintaining includes steps of determining when and where on said mass storage to record said network objects [on said mass storage] so as to improve [in response to a measure of] efficiency of [said steps of] maintaining or serving said network objects.

32. (Amended) A method as in claim 31, wherein said network objects include [step of maintaining includes a step of controlling a measure of latency for displaying] an HTML page to be retrieved from said cache memory and served to the client for display.

33. (Amended) A method as in claim 31, including a step of serving said network objects to said client [information requester] in place of said server [information provider].

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34. (Amended) A method as in claim 33, wherein [including a step of serving] said network objects are served to said client [information requester] in place of said server [information provider] in response to a second request from said client [information requester].

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39. (Amended) A method, including steps of:
receiving a set of network objects in response to a first request to a server [an information provider] from a client [an information requester]; and

maintaining said network objects in a cache memory in a network cache, said cache memory including mass storage;

wherein said step of maintaining ~~includes~~ steps of recording said network objects in said cache memory and retrieving said network objects from said cache memory, so as to perform at least one of:

minimizing [a measure of] a rate at which said network objects can be written to said mass storage,

maximizing [a measure of] a rate at which said network objects can be erased from said mass storage,

maximizing [a measure of] a rate at which said network objects can be retrieved from said mass storage, or

minimizing a [measure of latency] time required for retrieving said network objects from said mass storage.

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40. (Amended) A method as in claim 39, wherein said network objects include [step of maintaining includes a step of controlling a measure of latency for displaying] an HTML page to be retrieved from said cache memory and served to the client for display.

41. (Amended) A method as in claim 39, including a step of serving said network objects to said client [information requester] in place of said server [information provider].

42. (Amended) A method as in claim 41, wherein [including a step of serving] said network objects are served to said client [information requester] in place of said server [information provider] in response to a second request from said client [information requester].

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47. (Amended) A method, including steps of:
receiving a set of network objects in response to a first request to a server [an information provider] from a client [an information requester]; and
maintaining said network objects in a cache memory in a network cache, said cache memory including mass storage;
wherein said step of maintaining is performed independently of a file system for [using] said mass storage.

48. (Amended) A method, including steps of:

receiving a set of network objects in response to a first request to a server [an information provider] from a client [an information requester]; and

maintaining said network objects in a cache memory in a network cache, said cache memory including mass storage;

wherein said step of maintaining includes steps of selecting a group of more than one said network objects to be written to said mass storage collectively, and writing said group of network objects to said mass storage in one or more write episodes.

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49. (Amended) A method, including steps of:

receiving a set of network objects in response to a first request to a server [an information provider] from a client [an information requester]; and

maintaining said network objects in a cache memory in a network cache, said cache memory including mass storage;

wherein said step of maintaining includes steps of writing a group of network objects to said mass storage in one or more write episodes, such that [at least one parameter of said write episode is responsive to a measure of] efficiency of [said steps of] maintaining or serving said network objects is improved.

50. (Amended) A method, including steps of:

receiving a set of network objects in response to a first request to a server [an information provider] from a client [an information requester]; and

maintaining said network objects in a cache memory in a network cache, said cache memory including mass storage;

wherein said step of maintaining includes steps of selecting a group of more than one of said network objects to be deleted from said mass storage collectively, and deleting said group of network objects to said mass storage in one or more delete episodes.

51. (Amended) A method, including steps of:

receiving a set of network objects in response to a first request to a server [an information provider] from a client [an information requester]; and

maintaining said network objects in a cache memory in a network cache, said cache memory including mass storage;

wherein said step of maintaining includes steps of deleting a group of network objects from said mass storage in one or more delete episodes, such that [at least one parameter of said delete episode is responsive to a measure of] efficiency of [said steps of] maintaining or serving said network objects is improved.

52. (Amended) A method, including steps of:
receiving a set of network objects in response to a first request to a server [an information provider] from a client [an information requester]; and
maintaining said network objects in a cache memory in a network cache, said cache memory including mass storage,
wherein said cache memory utilizes non-hierarchical storage [includes at least a portion thereof that is non-persistent].

Cmt.

53. (Amended) A method, including steps of:
receiving a set of network objects in response to a first request to a server [an information provider] from a client [an information requester]; and
maintaining said network objects in a cache memory in a network cache, said cache memory including mass storage;
wherein said step of maintaining includes steps of recording said network objects in said memory and retrieving said network objects from said memory, without having to maintain said network objects persistently.

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54. (Amended) A method, including steps of:
receiving a set of network objects in response to a first request to a server [an information provider] from a client [an information requester]; and

maintaining said network objects in a cache memory in a network cache, said cache memory including mass storage;

wherein said step of maintaining includes a step of writing a group of network objects to said mass storage in one or more write episodes, such that said write episodes are performed so as to atomically commit changes to said mass storage during each said write episode by writing modified data and control blocks to the mass storage without erasing corresponding unmodified data and control blocks and then replacing a root node so as to atomically commit the changes [, and whereby said information remains available after at least one of (a) loss of power, (b) loss of storage, or (c) immediate failure of at least a portion of said memory].

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55. (Amended) A method, including steps of:

receiving a set of network objects in response to a first request to a server [an information provider] from a client [an information requester]; and

maintaining said network objects in a cache memory in a network cache, said cache memory including mass storage;

wherein said step of maintaining includes a step of deleting a group of network objects to said mass storage in one or more delete episodes, such that said delete episodes are performed so as to atomically commit changes to said mass storage during each said delete episode by writing modified control blocks to the mass storage without erasing corresponding unmodified control blocks and then replacing a root node so as to atomically commit the changes